

CLAIMS

1. A method of operating a fuel reforming system, the method comprising the steps of:

operating a turbocharger so as to produce pressurized air, and
5 advancing the pressurized air through a fuel reformer.

2. The method of claim 1, further comprising the step of advancing a reformate gas produced by the fuel reformer to an intake of an internal combustion engine with the pressurized air.

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3. The method of claim 2, wherein:
the reformate gas comprises a hydrogen-rich gas, and
the reformate gas advancing step comprises advancing the hydrogen-rich gas to the intake of the engine with the pressurized air.

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4. The method of claim 1, further comprising the step of advancing a reformate gas produced by the fuel reformer to an emission abatement device with the pressurized air.

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5. The method of claim 4, wherein:
the reformate gas comprises a hydrogen-rich gas, and
the reformate gas advancing step comprises advancing the hydrogen-rich gas to the emission abatement device with the pressurized air.

6. The method of claim 1, wherein:
the turbocharger has a turbine assembly, and
the operating step comprises driving the turbine assembly with exhaust
gases from an internal combustion engine.

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7. The method of claim 1, wherein:
the fuel reformer comprises a plasma fuel reformer having an air inlet,
and
the advancing step comprises advancing the pressurized air through the
10 air inlet of the plasma fuel reformer.

8. A fuel reforming system, comprising:
a turbocharger having a pressurized air outlet, and
a fuel reformer having an air inlet fluidly coupled to the pressurized air
15 outlet.

9. The system of claim 8, wherein:
the fuel reformer has a reformatte gas outlet, and
the reformatte gas outlet is fluidly coupled to an intake of an internal
20 combustion engine.

10. The system of claim 8, wherein:
the fuel reformer has a reformatte gas outlet, and
the reformatte gas outlet is fluidly coupled to an emission abatement
25 device.

11. The system of claim 8, wherein:

the turbocharger comprises a turbine assembly having a turbine gas inlet, and

5 the turbine gas inlet is fluidly coupled to an exhaust manifold of an internal combustion engine.

12. The system of claim 8, wherein the fuel reformer comprises a plasma fuel reformer.

10 13. A method of operating a power system, the method comprising the steps of:

operating a turbocharger so as to produce pressurized air, and advancing a reformate gas from a fuel reformer to a component with the pressurized air.

15 14. The method of claim 13, wherein the advancing step comprises advancing the reformate gas from the fuel reformer to an intake of an internal combustion engine with the pressurized air.

20 15. The method of claim 13, wherein the advancing step comprises advancing the reformate gas from the fuel reformer to an emission abatement device with the pressurized air.

16. The method of claim 13, wherein:

25 the turbocharger has a turbine assembly, and the operating step comprises driving the turbine assembly with exhaust gases from an internal combustion engine.

17. The method of claim 13, wherein:
the reformate gas comprises a hydrogen-rich gas, and
the advancing step comprises advancing the hydrogen-rich gas to the
component with the pressurized air.